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AN EVALUATION OF SOME SELECTED OBJECTIVES OF MODULAR SCHEDULING FOR THE CLASS OF 1970 AT WESTSIDE HIGH SCHOOL

A Field Project

Presented to

the Faculty of the Graduate School

University of Nebraska

at Omaha

In Partial Fulfillment

of the Requirements for the Degree

Specialist in Educational Administration

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by

Leslie L. Sladek

October 1970

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Accepted for the faculty of The Graduate College of the University of Nebraska at Omaha, in partial fulfillment of the requirements for the degree Specialist in Education.

Graduate Committee

Kenneth Burkholder, Ed. Ad.
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Chairman

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FOREWORD

Many standards of our society are in a state of flux at the present time. So must be many of the traditions and standards of our secondary schools, as education is the foundation stone of a democratic society.

Educational programs must have as an end result the production of a preponderance of individuals who feel that others think of him or her as an individual with dignity and worth. In addition, the graduates of this elusive program must eagerly hold a commitment to their fellow man and to the proposition that alternatives for orderly change do exist within our society. Too much of the time individuals and micro-societies search without knowing for what they search or the consequences of the search.

Some very critical questions must be answered in the next decade. Two of these questions might be as follows: (1) What changes should be selected for implementation so as to bring about improvement in our society? (2) What priorities must be established among the changes selected?

Contemplated change implies value revision and the formulation of new long-range goals. The selections from among the alternative methods for change should imply a careful consideration of the consequences of the method chosen.

The graduates of our secondary schools and institutions of higher learning must be properly equipped to make these decisions and establish priorities among the proposals for societal stability and change.

Schools are continuously implementing experimental programs in their search for an educational program which will provide greater opportunities for students to develop characteristics of self-realization and responsibility. The educators and educational institutions of the United States possess the potential to blend together the proper ingredients to make such an educational program a reality. The experimentation, innovation, and research of the past, present, and future can deliver the portfolio of educational services and programs which will fulfill the need of the youth of America and the dreams of educators.

One such small link in this chain of innovative programs is the flexible modular scheduling implemented at Westside High School, Omaha, Nebraska, in September of 1967. This is a report of a study of that program. The writer of this report initiated the study in April of 1970 and completed it in the Fall of 1970.

CHAPTER I

THE PROJECT

STATEMENT OF THE PROBLEM

This study is an attempt to determine the extent to which some selected objectives of modular scheduling have been achieved for the class of 1970 at Westside High School, Omaha, Nebraska.

The objectives, as established by the faculty of Westside High School, are as follows:

1. To provide more individual instruction for students.
2. To provide a means by which teacher time and talents could be utilized more effectively.
3. To help students become more responsible for their own learning and develop greater individual self-direction and self-responsibility.
4. To help a student improve his study skills and attitudes.
5. To improve a student's ability to think critically.
6. To increase academic achievement.[1]

DEFINITION OF TERMS

(1) Modular Schedule: A structural arrangement whereby the school day is divided into twenty-one 20-minute modules. These modules may be used singly or in combinations with each other to provide the time bank for any of the four instructional phases of modular scheduling as seen in the model employed by Westside High School. These phases are

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[1]The objectives were developed by the teachers and administrators during the 1965-66 school year.

large group, small group, independent study, and laboratory group. The primary purpose of such a schedule is to facilitate individualized instruction.

(2) Individual Instruction: Any learning activity taking place between a student and teacher or between a student and media during any instructional phase.

(3) Large Group: The large group in a modular schedule design, is generally referred to in a physical sense as a situation requiring more than 20 students to focus their attention on a single source of instructional activity and usually containing from perhaps as few as 40 to 400 or more students.[2]

There are basically nine kinds of activities that can be carried on in the large group; introducing a unit or area; motivation; explanation; exploration; planning; group study; enrichment; generalization, and evaluation.[3]

(4) Small Group: In small group instruction, the primary emphasis is on face-to-face contact and group interaction. Analytical or exploratory discussions and group critiques demand limited numbers. Small group interaction provides opportunity for individual participation, for discussing ideas raised in large group or laboratory discussion, for establishing close teacher-pupil relationships, and for testing the effectiveness of large group and laboratory instruction. Thus to be defined as "small group instruction", the group must be small enough for all members to interact.[4]

(5) Independent Study: The term independent study means a learning situation within the school day which allows a student to develop personal competence through experiences as an individual, but in interaction with

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[2]Gaynor Petrequin, Individualizing Learning Through Modular-Flexible Programming (New York; McGraw-Hill Book Co., Inc., 1968), p. 15.

[3]J. Lloyd Trump, Images of the Future (Commission on The Experimental Study of the Utilization of the Staff in the Secondary School), Published by the National Association of Secondary School Principals, 1959. p. 8.

[4]Robert N. Bush & Dwight W. Allen, A New Design for High School Education (New York: McGraw-Hill Book Co., Inc., 1964), p. 36.

others when needed.

It is characterized by freedom from constant supervision. Students read, write, contemplate, listen to records and tapes, view, record, memorize, create, build, practice, exercise, experiment, examine, analyze, investigate, question, discover, and converse. It implies that all students possess potentialities for self-initiative, self-discipline, resourcefulness, productivity, and self-evaluation.[5]

(6) Team Teaching: An arrangement whereby two or more teachers, with or without teacher aides, cooperatively plan, instruct, and evaluate one or more class groups in an appropriate instructional space and given length of time, so as to take advantage of the special competencies of team members.[6]

SCOPE OF STUDY

This study is a partial replication of a study completed in 1969[7]. It is limited to determining to what extent objectives one, two, three, and six were satisfied. Dr. Farrar employed additional tests designed to measure the effectiveness of modular scheduling relative to objectives four and five. This study does not utilize those tests.

This study, in contrast to Dr. Farrar's, separated

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[5]David W. Beggs III, and Edward G. Buffie, Independent Study, Bold New Venture (Bloomington and London: Indiana University Press, 1966), p. 2.

[6]David W. Beggs III, Team Teaching -- Bold New Venture (Bloomington & London: Indiana University Press, 1967), p. 16.

[7]Ralph Farrar, An Evaluation of Modular Scheduling at Westside High School (An unpublished dissertation - University of Nebraska at Lincoln, 1969).

the testing results and questionnaire responses of students in the first, second, third, and fourth quarters.

Thus, an attempt was made to determine if there was significant growth in the academic achievement for the students in each quarter of the class of 1970. In addition, an attempt was made to measure the effectiveness of the various modes of instruction utilized by this particular model of modular scheduling.

Study skills, attitudes, and critical thinking were measured indirectly inasmuch as the comment sheets of the questionnaires which were completed by the students reflected learning in these areas.

The population sample consisted of 26 students randomly selected from each of the four quarters. Several scores were subsequently removed from the original sample because of the invalidity of responses. Findings will be tabulated by quartile and by total group.

ORGANIZATION OF REPORT

The report of this study is organized into four chapters as follows:

Chapter I - The Project.

Chapter II - Procedures.

Chapter III - Data and Findings.

Chapter IV - Summary and Conclusions.

CHAPTER II

PROCEDURES

The purpose of this chapter is to describe the methods of research used in this study, the evaluative instruments, and procedures used in the collection and treatment of data.

Evaluative Instruments

The instruments of research included the use of the Sequential Tests of Educational Progress (S.T.E.P.) and a questionnaire which included an open-ended comment sheet.

Measurement of Academic Growth

The Sequential Tests of Educational Progress were given in the areas of reading, science, social studies, and mathematics. These tests were given for the purpose of measuring the extent to which significant academic growth had been attained by the 1970 class of Westside High School, Omaha, Nebraska. The guidance department assisted the writer in administering these tests.

The Sequential Tests of Educational Progress were chosen as the objective instrument to measure academic achievement because they had been administered to these students in previous years and thus offered a basis for comparisons.

The Sequential Tests of Educational Progress are based upon the following assumptions:

1. "The primary goal of the whole educational process is the development of the individual student."

2. "The focus of education is upon development of critical skills and understandings."

3. "Education is a continuous and cumulative process."

4. "The success of education is to be measured in terms of the individual student's ability to apply his school learned skills in solving new problems."[1]

The following hypothesis was tested in null form: There is no significant difference in the achievement levels attained by students on a modular scheduling program and those attained by the same students on a traditional schedule.

The null hypothesis made it possible to evaluate the data in terms of the available test of significance. Significance implies the probability required for rejecting the null hypothesis. This is the same hypothesis tested in Dr. Farrar' study.[2]

The five percent and the one percent levels of significance were used in this study. The five percent level of

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[1]John E. Stecklein, The Sixth Mental Measurements Yearbook, editor - Oscar Buros (Highland Park, New Jersey: the Gryphon Press, 1965), p. 25.

[2]Farrar, op. cit., pp. 94-95.

significance means that the difference between the means of two groups is so great that the difference between the means would occur due to sampling fluctuation in less than five percent of the samples from population in which the mean differences were zero. Likewise, the one percent level means that the difference between the means of the two groups is so great that the difference between the means would occur due to sampling fluctuation in less than one percent of the samples from the population in which the mean differences are zero.[3]

Put another way, the attainment of the five percent level of significance means that the probability that growth has taken place is .95. Similarly, the attainment of the one percent level of significance means that the probability that growth has taken place is .99.

The statistical technique which was used to evaluate the differences between the means of the two samples is the t-analysis. The following Cocker and Cox pooled variance formula was used:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\theta_1^2}{N_1 - 1} + \frac{\theta_2^2}{N_2 - 1}}}$$

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[3] J. E. West, J. S. Ahmanny, and C. O. Neidt, Statistical Methods and Psychological Research (New York: Appleton-Century-Crofts, 1954).

where $\bar{X}_1$ and $\bar{X}_2$ are the means of the first and second samples, respectively; N_1 and N_2 are the sizes of the first and second samples, respectively; and Θ_1 and Θ_2 are the standard deviations squared of the first and second samples, respectively. $N_1 - 1$ and $N_2 - 1$ represent the degrees of freedom in each sample, respectively.

This formula yields a t-value which may be compared with tabled values of t to determine the significance of the t-values (Standard Mathematical Tables).[4]

These are the same levels of significance and the same t-analysis used in Farrar's study.[5]

Measurement of Attitudes

A questionnaire was used to determine student attitudes toward the learning experiences provided for them in large group, small group, independent study, and the overall program. This questionnaire was designed by Dr. Gerald Speckhard and modified by Dr. Farrar for use in his study.[6]

The questionnaire is objective in nature with provisions for student comment.

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[4]Charles D. Hodgman, Editor in Chief, Standard Mathematical Tables (Cleveland: Chemical Rubber Publishing Co., 12th edition), pp. 251-252.

[5]Farrar, op. cit., pp. 94-96.

[6]Farrar, op. cit., pp. 86-87.

Sample and Tabulation

The results of the testing and the questionnaires were broken down into the four quarters of the class. The extent of significant academic growth in the four areas tested is tabulated from the tenth to eleventh year, the eleventh to twelfth year, and the tenth to twelfth year. The total sample is also tabulated in each of the academic areas for each of these time periods. The data for the testing in previous years was gathered from the individual student cumulative folders.

The sample for each quarter was obtained by selecting three-digit numbers from a table of random numbers and then correlating these numbers to particular students with the corresponding class rank.[7]

The number of students in the final sample varies from quarter to quarter and among the four academic areas. These differences of sample sizes vary because of the invalidation of several scores in the original samples. In all cases, the minimum number in each sample was 21 and the maximum number was 24. This yields a sample representing a minimum of 12 percent of the population in each quarter of the class.

In this report, reference to students in the uppermost or fourth quarter are those students ranking in the top 25

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[7]Hodgman, op. cit., pp. 237-243.

percent of their class. Students indicated to be in the third quarter are those students in the 25 percent just above the median. The 25 percent of the students just below the median are indicated as being in the second quarter and the students in the lowermost or first quarter rank in the bottom 25 percent of their class.

The tabulation of the results of the S.T.E.P. appear in Chapter III of this study. These tables are followed by the tabulation of the questionnaires. Remarks concerning the responses on the comment sheets of the questionnaire follow the tables. Student comments appearing less than twice were not recorded in this study.

The questionnaire used in this study appears in Appendix A.

CHAPTER III

DATA AND FINDINGS

The first sixteen tables in this chapter contain the results of the Sequential Tests of Educational Progress. These results are broken down by quarter and also tabulated by the entire sample for each of the four academic areas tested. Following these tables is a summarization of the data contained in the tables.

Tables seventeen through twenty-eight contain the data received from the student questionnaires. The function of the questionnaire was to determine practices, problems, and attitudes about large group, small group, independent study, and modular scheduling. The data from these tables is also summarized.

The last part of the chapter consists of enumerated student responses to the open-ended questions in the questionnaire. The frequency of responses from each quarter are given. (Note paragraph one on page 12). Some responses were student formulated and the only ones included in this report are those which occurred more than once.

TABLE 1

S.T.E.P. SCIENCE

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADE 10 TO 11

	10th to 11th							
	Quarter							
	4		3		2		1	
Converted Score	293	295	292	292	280	282	277	278
Standard Deviation	10.3	12.0	7.4	9.6	8.1	8.4	14.9	13.8
Number of Students	24	24	24	24	24	24	23	23
Form	2B		2B		2B		2B	
Testing Dates	4-68	4-69	4-68	4-69	4-68	4-69	4-68	4-69
t-scores	.61		.00		.83		.23	

Significance: .05 level t=2.069 or above and .01 level t=2.807 or above for N=24.
.05 level t=2.074 or above and .01 level t=2.819 or above for N=23.

TABLE 2

S.T.E.P. SCIENCE

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADE 11 TO 12

11th to 12th

Quarter

	4		3		2		1	
Converted Score	295	296	292	293	282	284	278	278
Standard Deviation	12.0	9.8	9.6	9.2	8.4	9.5	14.9	16.2
Number of Students	24	24	24	24	24	24	23	23
Form	2B		2B		2B		2B	
Testing Dates	4-69	4-70	4-69	4-70	4-69	4-70	4-69	4-70
t-scores	.31		.39		.70		.00	

Significance: .05 level t=2.069 or above and .01 level t=2.807 or above for N=24
.05 level t=2.074 or above and .01 level t=2.819 or above for N=23

TABLE 3

S.T.E.P. SCIENCE

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADE 10 TO 12

10th to 12th

Quarter

	4		3		2		1	
Converted Score	293	296	292	293	280	284	277	278
Standard Deviation	10.3	9.8	7.4	8.2	8.1	9.5	14.9	16.2
Number of Students	24	24	24	24	24	24	23	23
Form	2B		2B		2B		2B	
Testing Dates	4-68	4-70	4-68	4-70	4-68	4-70	4-68	4-70
t-scores	1.0		.43		1.6		.21	

Significance: .05 level t=2.069 or above and .01 level t=2.807 or above for N=24
.05 level t=2.074 or above and .01 level t=2.819 or above for N=23

TABLE 4

S.T.E.P. MATHEMATICS

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADE 10 TO 11

10th to 11th

	Quarter							
	4		3		2		1	
Converted Score	293	296	284	288	278	279	275	277
Standard Deviation	8.8	9.7	9.6	9.6	14.9	15.2	13.8	15.8
Number of Students	24	24	24	24	24	24	23	23
Form	2B		2B		2B		2B	
Testing Dates	4-68	4-69	4-68	4-69	4-68	4-69	4-68	4-69
t-scores	1.1		1.4		.22		.45	

Significance: .05 level t=2.069 or above and .01 level t=2.807 or above for N=24
.05 level t=2.074 or above and .01 level t=2.819 or above for N=23

TABLE 5

S.T.E.P. MATHEMATICS

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADE 11 TO 12

	11th to 12th							
	Quarter							
	4		3		2		1	
Converted Score	296	298	288	290	279	283	277	275
Standard Deviation	9.7	8.9	9.6	10.4	15.2	13.4	15.8	15.4
Number of Students	24	24	24	24	24	24	23	23
Form	2B		2B		2B		2B	
Testing Dates	4-69	4-70	4-69	4-70	4-69	4-70	4-69	4-70
t-scores	.74		.69		.95		-.43	

Significance: .05 level t=2.069 or above and .01 level t=2.807 or above for N=24
.05 level t=2.074 or above and .01 level t=2.819 or above for N=23

TABLE 6

S.T.E.P. MATHEMATICS

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADE 10 TO 12

10th to 12th

Quarter	4		3		2		1	
Converted score	293	298	284	290	278	283	275	275
Standard Deviation	8.8	8.9	9.6	10.4	14.9	13.4	13.8	15.4
Number of Students	24	24	24	24	24	24	23	23
Form	2B		2B		2B		2B	
Testing Dates	4-68	4-70	4-68	4-70	4-68	4-70	4-68	4-70
t-scores	2.0		2.09		1.2		.00	

Significance: .05 level t=2.069 or above and .01 level t=2.807 or above for N=24
.05 level t=2.074 or above and .01 level t=2.819 or above for N=23

TABLE 7

S.T.E.P. SOCIAL STUDIES

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADE 10 TO 11

	10th to 11th							
	Quarter							
	4		3		2		1	
Converted Score	292	303	291	298	274	282	270	274
Standard Deviation	10.5	11.7	10.5	10.1	12.3	9.7	13.2	14.0
Number of Students	24	24	24	24	24	24	23	23
Form	2B		2B		2B		2B	
Testing Dates	4-68	4-69	4-68	4-69	4-68	4-69	4-68	4-69
t-scores	3.33		2.31		2.5		1.1	

Significance: .05 level t=2.069 or above and .01 level t=2.807 or above for N=24
.05 level t=2.074 or above and .01 level t=2.819 or above for N=23

TABLE 8

S.T.E.P. SOCIAL STUDIES

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADE 11 TO 12

11th to 12th

Quarter	4		3		2		1	
Converted Score	303	304	298	298	282	283	274	273
Standard Deviation	11.7	10.2	10.1	13.6	9.7	12.4	14.0	12.8
Number of Students	24	24	24	24	24	24	23	23
Form	2B		2B		2B		2B	
Testing Dates	4-69	4-70	4-69	4-70	4-69	4-70	4-69	4-70
t-scores	.41		.00		.303		-.24	

Significance: .05 level t=2.069 or above and .01 level t=2.807 or above for N=24
.05 level t=2.074 or above and .01 level t=2.819 or above for N=23

TABLE 9

S.T.E.P. SOCIAL STUDIES

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADE 10 TO 12

10th to 12th

Quarter

	4		3		2		1	
Converted Score	292	304	291	298	274	283	270	273
Standard Deviation	10.5	10.2	10.5	13.6	12.3	12.4	13.2	12.8
Number of Students	24	24	24	24	24	24	23	23
Form	2B		2B		2B		2B	
Testing Dates	4-68	4-70	4-68	4-70	4-68	4-70	4-68	4-70
t-scores	3.87		1.95		2.5		.77	

Significance: .05 level t=2.069 or above and .01 level t=2.807 or above for N=24
.05 level t=2.074 or above and .01 level t=2.819 or above for N=23

TABLE 10

S.T.E.P. READING

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADE 10 TO 11

10th to 11th

	Quarter							
	4		3		2		1	
Converted Score	311	312	307	309	292	295	279	282
Standard Deviation	9.9	7.6	9.5	7.5	14.1	11.8	15.7	13.6
Number of Students	23	23	24	24	21	21	21	21
Form	2B		2B		2B		2B	
Testing Dates	4-68	4-69	4-68	4-69	4-68	4-69	4-68	4-69
t-scores	.38		.80		.73		.57	

Significance: .05 level t=2.069 or above and .01 level t=2.807 or above for N=24
.05 level t=2.074 or above and .01 level t=2.819 or above for N=23
.05 level t=2.086 or above and .01 level t=2.845 or above for N=21

TABLE 11

S.T.E.P. READING

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADE 11 TO 12

11th to 12th

	Quarter							
	4		3		2		1	
Converted Score	312	315	309	311	295	299	282	279
Standard Deviation	7.6	10.1	7.5	12.7	11.8	11.7	13.6	17.3
Number of Students	23	23	24	24	21	21	21	21
Form	2B		2B		2B		2B	
Testing Dates	4-69	4-70	4-69	4-70	4-69	4-70	4-69	4-70
t-scores	1.1		.64		1.08		-.61	

Significance: .05 level t=2.069 or above and .01 level t=2.807 or above for N=24
.05 level t=2.074 or above and .01 level t=2.819 or above for N=23
.05 level t=2.086 or above and .01 level t=2.845 or above for N=21

TABLE 12

S.T.E.P. READING

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADE 10 TO 12

10th to 12th

	Quarter							
	4		3		2		1	
Converted score	311	315	307	311	292	299	279	279
Standard Deviation	9.9	10.1	9.5	12.7	14.1	11.7	15.7	17.3
Number of Students	23	23	24	24	21	21	21	21
Form	2B		2B		2B		2B	
Testing Dates	4-68	4-70	4-68	4-70	4-68	4-70	4-68	4-70
t-scores	1.33		1.14		1.75		.00	

Significance: .05 level t=2.069 or above and .01 level t=2.807 or above for N=24
.05 level t=2.074 or above and .01 level t=2.819 or above for N=23
.05 level t=2.086 or above and .01 level t=2.845 or above for N=21

TABLE 13

S.T.E.P. SCIENCE

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADES 10 TO 11, 11 TO 12, AND 10 TO 12

	10th to 11th		11th to 12th		10th to 12th	
Converted Score	285	287	287	288	285	288
Standard Deviation	12.6	13.2	13.2	13.3	12.6	13.3
Number of Students	95	95	95	95	95	95
Form	2B		2B		2B	
Testing Dates	4-68	4-69	4-69	4-70	4-68	4-70
t-scores	1.10		.53		1.80	

Significance: .05 level t=1.991 or above and .01 level t=2.639 or above for N=95

TABLE 14

S.T.E.P. MATHEMATICS

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADES 10 TO 11, 11 TO 12, AND 10 TO 12

	10th to 11th		11th to 12th		10th to 12th	
Converted Score	283	285	285	287	283	287
Standard Deviation	13.6	14.9	14.9	15.2	13.6	15.2
Number of Students	95	95	95	95	95	95
Form	2B		2B		2B	
Testing Dates	4-68	4-69	4-69	4-70	4-68	4-70
t-scores	.95		.91		2.00	

Significance: .05 level t=1.991 or above and .01 level t=2.639 or above for N=95

TABLE 15

S.T.E.P. SOCIAL STUDIES

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADES 10 TO 11, 11 TO 12, AND 10 TO 12

	10th to 11th		11th to 12th		10th to 12th	
Converted Score	282	289	289	290	282	290
Standard Deviation	15.2	16.2	16.2	17.3	15.2	17.3
Number of Students	95	95	95	95	95	95
Form	2B		2B		2B	
Testing Dates	4-68	4-69	4-69	4-70	4-68	4-70
t-scores	3.00		.42		3.30	

Significance: .05 level t=1.991 or above and .01 level t=2.639 or above for N=95

TABLE 16

S.T.E.P. READING

COMPARISON OF MEAN SCORES OF THE CLASS OF 1970 AS STUDENTS PROGRESSED FROM GRADES 10 TO 11, 11 TO 12, AND 10 TO 12

	10th to 11th		11th to 12th		10th to 12th	
Converted Score	298	300	300	301	298	301
Standard Deviation	17.2	15.9	15.9	18.7	17.2	18.7
Number of Students	89	89	89	89	89	89
Testing Dates	4-68	4-69	4-69	4-70	4-68	4-70
t-scores	.80		.38		1.10	

Significance: .05 level t=1.989 or above and .01 level t=2.638 or above for N=89

SUMMARY OF S.T.E.P. TEST DATA

S.T.E.P. Science

Grade	Quarter	Growth
10-11	4	growth (not significant)
10-11	3	no growth
10-11	2	growth (not significant)
10-11	1	growth (not significant)
10-11	all	growth (not significant)
11-12	4	growth (not significant)
11-12	3	growth (not significant)
11-12	2	growth (not significant)
11-12	1	no growth
11-12	all	growth (not significant)
10-12	4	growth (not significant)
10-12	3	growth (not significant)
10-12	2	growth (not significant)
10-12	1	growth (not significant)
10-12	all	growth (not significant)

S.T.E.P. Mathematics

Grade	Quarter	Growth
10-11	4	growth (not significant)
10-11	3	growth (not significant)
10-11	2	growth (not significant)
10-11	1	growth (not significant)
10-11	all	growth (not significant)
11-12	4	growth (not significant)
11-12	3	growth (not significant)
11-12	2	growth (not significant)
11-12	1	no growth (regression)
11-12	all	growth (not significant)
10-12	4	growth (not significant)
10-12	3	significant (5% level)
10-12	2	growth (not significant)
10-12	1	no growth
10-12	all	significant (5% level)

S.T.E.P. Social Studies

Grade	Quarter	Growth
10-11	4	significant (1% level)
10-11	3	significant (5% level)
10-11	2	significant (5% level)
10-11	1	growth (not significant)
10-11	all	significant (1% level)
11-12	4	growth (not significant)
11-12	3	no growth
11-12	2	growth (not significant)
11-12	1	no growth (regression)
11-12	all	growth (not significant)
10-12	4	significant (1% level)
10-12	3	growth (not significant)
10-12	2	significant (5% level)
10-12	1	growth (not significant)
10-12	all	significant (1% level)

S.T.E.P. Reading

Grade	Quarter	Growth
10-11	4	growth (not significant)
10-11	3	growth (not significant)
10-11	2	growth (not significant)
10-11	1	growth (not significant)
10-11	all	growth (not significant)
11-12	4	growth (not significant)
11-12	3	growth (not significant)
11-12	2	growth (not significant)
11-12	1	no growth (regression)
11-12	all	growth (not significant)
10-12	4	growth (not significant)
10-12	3	growth (not significant)
10-12	2	growth (not significant)
10-12	1	no growth
10-12	all	growth (not significant)

In his study of 1969, Dr. Farrar found growth in the areas of mathematics, science, and reading for the class of 1970 as they progressed from grade 10 to 11. He found significant growth in social studies for the 1970 class as they progressed

from grade 10 to 11. The writer of this report has arrived at the same findings. Dr. Farrar's sample was the total class population while the sample for this study was a randomly selected number of approximately 15 percent of the number of students from each quarter. This might tend to add validity to the representative character of the sample used for this study was a randomly selected number of approximately 15 percent of the number of students from each quarter. This might tend to add validity to the representative character of the sample used for this study.[1]

Students generally showed larger growth probability coefficients in the upper two quarters than they did in the first or second quarters.

No growth or regression occurred for the lowest quarter in mathematics, social studies, and reading as the students progressed from grade 11 to grade 12.

Where growth occurred from grades 10 to 12, more of this growth seemed to occur from grades 10 to 11 than from grades 11 to 12.

Growth, although not always significant, was evident for the three upper quarters in each of the four areas tested. Thus, academic achievement was increased for the students in the upper three quarters of the class of 1970.

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[1]Ralph Farrar, An Evaluation of Modular Scheduling at Westside High School (An unpublished dissertation - University of Nebraska at Lincoln, 1969), p. 174.

TABLE 17

RESPONSES OF STUDENTS ABOUT PRACTICES IN LARGE GROUP SESSIONS, EXPRESSED IN PERCENTAGES

(IV - 4th quarter; III - 3rd quarter; II - 2nd quarter; I - 1st quarter)

	Almost Always Or Very Often				Often Or Sometimes				Rarely Or Never			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
The teacher lectures	83	67	88	68	17	33	8	32	0	0	4	0
Outside speakers	0	4	4	9	48	33	44	27	52	63	52	64
Teacher gives demonstrations	4	8	12	18	57	59	44	41	39	33	44	41
Class takes a test	8	4	4	4	44	50	56	55	48	46	40	41
Teacher lets class study	4	0	0	0	4	4	8	9	92	96	92	91
Teacher uses film or filmstrip	13	4	8	9	79	83	70	77	8	13	22	14
Teacher uses TV, radio, or etc.	0	4	4	4	30	46	40	37	70	50	56	59
Teacher uses charts & graphs	4	8	8	4	48	50	61	59	48	42	31	37
Teacher carries on discussion	8	16	34	27	30	30	31	41	62	54	35	32
Students ask questions during demonstration	4	13	26	9	52	37	48	36	44	50	26	55
Student makes a presentation	0	0	0	4	26	33	48	41	74	67	52	55

TABLE 18

RESPONSES OF STUDENTS ABOUT PROBLEMS IN LARGE GROUP SESSIONS, EXPRESSED IN PERCENTAGES

(IV - 4th quarter; III - 3rd quarter; II - 2nd quarter; I - 1st quarter)

	Almost Always Or Very Often				Often Or Sometimes				Rarely Or Never			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
Instruction is less personal	4	4	8	18	8	4	31	41	88	92	61	41
Not able to hear as well	0	0	4	4	26	21	48	23	74	79	48	73
Not able to see as well	0	0	8	9	26	37	22	14	74	63	70	77
Other students cause distractions	0	0	8	14	52	30	31	45	48	70	61	41
Not able to ask questions	0	8	8	27	44	33	46	32	56	59	46	41
Lack of variation during session	13	30	17	23	61	46	31	50	26	24	52	27
Not able to have discussion	4	13	4	18	26	16	40	32	70	71	56	50
Teacher goes too fast	0	0	26	27	48	46	44	27	52	54	30	46

TABLE 19

RESPONSES OF STUDENTS ABOUT THEIR FEELINGS TOWARD LARGE GROUP SESSIONS, EXPRESSED IN PERCENTAGES

(IV - 4th quarter; III - 3rd quarter; II - 2nd quarter; I - 1st quarter)

	Almost Always Or Very Often Better Or Greater Very Worthwhile				Sometimes Or Occasionally About The Same Somewhat Worthwhile				Rarely Or Never Not As Well Or Less Rarely Worthwhile			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
Makes me want to do further study on the topic	4	4	4	9	79	54	34	45	17	42	62	45
Compared to a normal classroom, I learn	22	12	20	18	65	46	40	32	13	42	40	50
Students pay attention	62	33	48	41	34	59	52	59	4	8	0	0
Type of presentation changed from one session to another	0	8	13	14	54	37	56	54	46	55	31	32
Presentation varied during session	4	13	13	9	40	45	56	54	56	42	31	37
Large groups are	56	37	26	9	36	46	70	73	8	17	4	18
Temptation to daydream, talk, or read as compared to normal classroom	50	50	65	73	50	42	31	27	0	8	4	0

SUMMARY OF STUDENT RESPONSES TO QUESTIONS PERTAINING TO LARGE GROUP

1. Nearly one hundred percent of all students felt that the lecture is the predominate instructional technique used in large group.

2. Outside speakers are not brought into large group very often.

3. About one-half of the students in each quarter indicated that the teacher sometimes gives demonstrations.

4. Large group seems to be used for testing only rarely or sometimes.

5. Ninety-one percent or more of the students in each quarter indicated that the teacher rarely or never lets the class study in large group.

6. The vast majority of the students in each quarter indicated that teachers used films or filmstrips often or sometimes.

7. The majority of all students indicated that the teacher rarely or never uses the television or radio.

8. Teachers used charts or graphs often or sometimes as indicated by about one-half of all students.

9. Fifty-five percent of the students in the lowermost quarter indicated that they rarely or never ask questions during a demonstration in large group. Students in the other three quarters indicated that they asked questions more often.

10. A definite majority of students indicated that students rarely or never make presentations, with three-fourths of the students in the uppermost quarter making this response.

11. Eighty-eight percent of the students in the uppermost quarter and 92 percent of the students in the third quarter indicated that large group instruction is rarely or never less personal than that of a normal classroom. Less than one-half of the students in the lowermost quarter felt this way.

12. The vast majority of students were able to hear and see well in large group rooms.

13. Fifty-nine percent of the students in the lowermost quarter felt that other student distractions could be a problem of some degree while one-half or more of the students in each of the other three quarters felt that this was rarely or never a problem.

14. The lack of opportunity to ask questions was a split opinion varying from rarely or never to often or sometimes with 27 percent of the students in the lowermost quarter indicating that they were not able to ask questions very often.

15. Opinions as to lack of variation during a large group session were split among the three choices of response.

16. Discussion during a large group presentation did not occur almost always or very often.

17. More than one-fourth of the students in the two

lower quarters felt that the teacher goes too fast during a large group presentation. About one-half of the students in the other two quarters felt that teachers often or sometimes go too fast. Conversely, nearly 50 percent of the students in the lowermost quarter felt that the teacher rarely or never goes too fast.

18. Large group was only a rare to occasional motivation in making students want to do further study on a topic.

19. One-half of the students in the lowermost quarter felt that they did not learn as well in the large group as they might have in a normal classroom. The most positive response to this question was from the uppermost quarter with only 13 percent indicating that they did not learn as well.

20. Students pay attention about the same as or better than in the normal classroom most of the time.

21. Presentations during a large group session were varied only often to sometimes.

22. Ninety-two percent of the students in the uppermost quarter, 83 percent of the students in the third quarter, 96 percent of the students in the second quarter, and 81 percent of the students in the lowermost quarter felt that large group is somewhat worthwhile to very worthwhile.

23. Seventy-three percent of the students in the lowermost quarter said that the temptation to daydream, talk, or read was very great while 27 percent in the lowermost quarter indicated that this was somewhat of a problem. Most students in each quarter felt this was a problem of some degree.

TABLE 20

RESPONSES OF STUDENTS ABOUT PRACTICES IN SMALL GROUP SECTIONS, EXPRESSED IN PERCENTAGES

(IV - 4th quarter; III - 3rd quarter; II - 2nd quarter; I - 1st quarter)

	Almost Always Or Very Often				Often Or Sometimes				Rarely Or Never			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
The teacher lectures	4	16	13	14	56	33	56	63	40	51	31	23
Students lead class in discussion	13	42	26	9	87	37	52	54	0	21	22	37
Teacher leads class in discussion	18	24	22	37	74	55	61	63	8	21	17	0
Class studies or does homework	0	8	0	4	13	13	13	27	87	79	87	69
Students give reports	0	8	8	9	48	55	43	59	52	37	49	32
Students perform experiments	4	8	13	9	44	37	34	45	52	55	53	46
Teacher goes over homework	8	8	31	9	62	55	56	59	30	37	13	32
Individual students are helped	8	8	31	27	62	50	43	46	30	42	26	27
Students do as they please	0	4	0	0	18	21	4	18	82	75	96	82
Activities center about the large group topic	36	33	34	37	56	59	53	50	8	8	13	13
Students work elsewhere	0	4	4	0	8	4	4	23	92	92	92	77

TABLE 21

RESPONSES OF STUDENTS ABOUT PROBLEMS IN SMALL GROUP SESSIONS, EXPRESSED IN PERCENTAGES

(IV - 4th quarter; III - 3rd quarter; II - 2nd quarter; I - 1st quarter)

	A Definite Problem				Somewhat Of A Problem				No Problem			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
A few students monopolize discussion	13	18	34	9	43	40	31	37	44	42	35	54
Teacher dominates discussion	0	8	0	9	44	44	47	27	56	48	53	64
Students cause distractions	0	0	8	9	13	26	17	50	87	74	75	41
Time is too short	0	0	0	9	40	39	40	46	60	61	60	45
Discussion strays from topic under consideration	4	4	8	0	30	30	34	50	66	66	58	50
Not always able to meet with my section	0	0	4	4	8	8	4	4	92	92	92	92
Afraid to contribute because of teacher reaction	4	8	13	23	17	30	17	36	79	52	70	40
Afraid to contribute because of student reaction	8	14	26	32	22	43	17	36	70	43	57	32
Large group topic not discussed	0	0	8	9	44	48	31	41	56	52	61	50

TABLE 22

RESPONSES OF STUDENTS ABOUT THEIR FEELINGS TOWARD SMALL GROUP SESSIONS, EXPRESSED IN PERCENTAGES

(IV - 4th quarter; III- 3rd quarter; II - 2nd quarter; I - 1st quarter)

	Always Or Very Often Most Students Better More Worthwhile				Sometimes Or Occasionly Half of Students About The Same About The Same				Rarely Or Never A Few Students Not As Well Less			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
I contribute to the topic	83	39	31	32	13	48	52	54	4	13	17	14
Discussions involve	4	12	22	14	79	44	47	54	17	44	31	32
Students have opportunities to lead discussions	32	24	32	37	34	21	34	36	34	55	34	27
Encourages me to do further study	17	16	13	14	66	55	53	59	17	29	34	27
Compared to a normal classroom, I learn	83	52	74	59	13	48	26	27	4	0	0	14
Compared to a normal classroom, I learn to work with students	88	66	65	59	8	34	31	32	4	0	4	9
Compared to a normal classroom, small groups are	83	63	83	68	13	37	17	18	4	0	0	14
You direct your comments or questions to another student	58	44	31	14	34	40	43	63	8	16	26	23

SUMMARY OF STUDENT RESPONSES PERTAINING TO QUESTIONS ABOUT SMALL GROUP

1. It was evident that the teacher lectured often.

2. Both teachers and students led the discussion often.

3. The majority of all students felt that classes rarely or never did homework during small group.

4. About one-half of the students indicated that they sometimes gave reports in small group.

5. Activities did not always or nearly always center about the large group topic.

6. There did not seem to be many significant differences in which the students from quarter to quarter viewed the practices in small group.

7. A significant number of the students in the second quarter felt that teachers went over homework in small group almost always or very often.

8. Student-dominated discussions seemed to be more of a problem than teacher-dominated discussions.

9. There seemed to be plenty of time and few distractions in small group.

10. More than one-half of the students in the lowermost quarter felt that they were afraid to contribute because of teacher reaction.

11. Fear of student reaction seemed to be a greater problem than fear of teacher reaction in small group.

12. It is evident that more students in the uppermost quarter felt that they contributed to the topic often than did the students in the other 3 quarters.

13. Discussion seemed usually to involve about one-half of the students.

14. Students seemed split in their opinion as to the extent of their opportunities to lead discussions.

15. Small group encouraged a little more than one-half of the students to do further study occasionally.

16. Students generally felt that they learned more in the small group than in the normal classroom and that small group was quite worthwhile.

17. Students in the uppermost quarter generally indicated a more positive attitude about the values of small group.

TABLE 23

RESPONSES OF STUDENTS ABOUT WHAT THEY DO DURING INDEPENDENT STUDY TIME, EXPRESSED IN PERCENTAGES

(IV - 4th quarter; III - 3rd quarter; II - 2nd quarter; I - 1st quarter)

	Almost Always Or Very Often				Often Or Sometimes				Rarely Or Never			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
Study by myself	48	34	31	27	44	50	47	59	8	16	22	14
Consult a teacher for help	0	4	13	4	74	44	43	51	26	52	44	45
Talk to a counselor	0	0	4	0	34	16	17	27	66	84	79	73
Work in a laboratory, home ec. room, typing room, shop, music room, gym, or pool	26	13	17	23	40	61	57	27	34	26	26	50
Work with library materials	22	8	17	14	52	61	43	36	26	31	40	50
Study topics other than homework	8	8	17	18	56	54	56	59	40	30	40	23
Talk with other students about homework	8	8	17	18	84	79	79	45	8	13	4	37
Study course topic in greater depth than required by teacher	0	8	4	9	52	44	43	46	48	48	53	45
Do recreational reading	8	8	4	9	26	61	70	32	66	31	26	59

TABLE 23--Continued

(IV - 4th quarter; III - 3rd quarter; II - 2nd quarter; I - 1st quarter)

	Almost Always Or Very Often				Often Or Sometimes				Rarely Or Never			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
"Shoot the breeze" with a friend	8	16	26	32	62	71	66	45	30	13	8	23
Waste time	0	13	18	18	30	37	49	64	70	50	43	18
Work on activities	4	13	13	0	30	21	31	18	66	66	56	82

TABLE 24

RESPONSES OF STUDENTS ABOUT PROBLEMS THEY HAVE IN USING THEIR INDEPENDENT STUDY TIME, EXPRESSED IN PERCENTAGES

(IV - 4th quarter; III - 3rd quarter; II - 2nd quarter; I - 1st quarter)

	A Definite Problem				Somewhat Of A Problem				No Problem			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
Time periods often too short	4	0	8	9	52	37	43	68	44	63	49	23
Time periods often too long	13	8	4	9	17	29	22	27	70	63	74	64
No good place to study	17	16	13	23	34	13	17	36	49	71	70	41
Temptation to do other things than study	13	13	26	27	57	58	57	46	30	29	17	27
Distractions caused by students	8	8	8	26	70	50	40	48	22	42	52	26
Labs, shops, and etc, are not available during my study time	4	4	17	23	22	29	26	23	74	67	57	54
Not getting my work organized	8	13	4	14	30	42	40	59	62	45	56	27
Teachers not available for help	8	8	13	9	26	25	31	41	66	67	56	50
Not knowing what student materials are available to me	4	8	13	18	8	29	34	41	88	63	53	41

TABLE 24--Continued

(IV - 4th quarter; III - 3rd quarter; II - 2nd quarter; I - 1st quarter)

	A Definite Problem				Somewhat Of A Problem				No Problem			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
Counselors not available	4	4	4	4	4	0	31	36	92	96	65	60
Teachers do not encourage my seeking their help	8	0	4	14	4	29	13	14	88	71	83	72
Counselors do not encourage my seeking their help	8	8	4	9	4	13	13	32	88	79	83	59
Librarian is not available	0	8	4	9	4	8	8	18	96	84	88	73
Principals do not encourage my seeking their help	4	13	8	18	8	0	8	14	88	87	84	68

TABLE 25

RESPONSES OF STUDENTS ABOUT THEIR ATTITUDE TOWARD INDEPENDENT STUDY, EXPRESSED IN PERCENTAGES

(IV - 4th quarter; III - 3rd quarter; II - 2nd quarter; I - 1st quarter)

	Improved Better Generally Worthwhile				Stayed About The Same About The Same Somewhat Worthwhile				Became Worse Not As Well Rarely Worthwhile			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
Under independent study my attitude toward studying has	79	71	66	45	13	25	26	35	8	4	8	20
Compared to studying in a studyhall, classroom, or at home, in independent study, I learn	52	63	61	40	44	37	31	40	4	0	8	20
Independent study time is	83	84	92	58	17	16	4	37	0	0	4	5

SUMMARY OF STUDENT RESPONSES PERTAINING TO QUESTIONS ABOUT INDEPENDENT STUDY

1. Students often studied by themselves.

2. Students sometimes consulted a teacher for help, especially those students in the uppermost quarter.

3. Students rarely talked to a counselor.

4. Students did not very often study topics other than homework.

5. Students often talked with other students about homework.

6. One-half of the students in the lowermost quarter rarely or never worked in a laboratory, home economics room, typing room, shop, music room, gym, or pool.

7. One-half of the students in the lowermost quarter rarely or never studied the topic in greater depth than was required by the teacher. Practically none of the students studied a topic in greater depth almost always or very often.

8. Students in the second and third quarters did more recreational reading than did students in the uppermost and lowermost quarters.

9. Eighty-two percent of the students in the lowermost quarter wasted time. Sixty-seven percent in the second quarter wasted time. Fifty percent in the third quarter wasted time and thirty percent of the students in the uppermost quarter wasted time.

10. Two-thirds to four-fifths of the students rarely or never worked on activities during independent study time.

11. The length of time periods for independent study did not seem to be much of a problem for any significant number of students.

12. More students in the uppermost and lowermost quarters felt that they had no good place to study than did those students in the second and third quarters.

13. More than 75 percent of the students felt that the temptation to do other things than study was somewhat of a problem or a definite problem.

14. Distractions caused by other students were more of a problem for students in the uppermost and lowermost quarters than for those students in the second and third quarters.

15. Less than one-half of the students felt that it was a problem to find a laboratory or shop in which to study. It was more of a problem for students in the lowermost quarter and presented the least difficulty for students in the uppermost quarter.

16. Seventy-three percent of the students in the lowermost quarter had problems getting their work organized. Thirty-eight percent of the students in the uppermost quarter had problems getting their work organized.

17. From one-half to two-thirds of the students felt that it was no problem finding a teacher to help them.

18. Fifty percent or more of the students felt that knowing what materials were available to them was no problem.

19. The availability of a counselor was more of a problem for students in the lowermost quarter than it was for students in the other three quarters. However, more than 60 percent of the students in the lowermost quarter felt that this was no problem.

20. Seventy percent or more of the students felt that teachers encouraged seeking their help.

21. Eighty percent or more of the students felt that they were encouraged to see counselors except in the lowermost quarter where only 59 percent of the students felt that they were encouraged to see their counselor.

22. Three-fourths or more of the students felt that a librarian was always available.

23. Most students felt that the principals encouraged seeking their help.

24. Nearly 80 percent of the students in the uppermost quarter felt that their attitude toward study had improved under independent study. Only 45 percent of the students in the lowermost quarter felt that their attitude toward study had improved while 20 percent felt that their attitude had become worse.

25. One-half of the students in the lowermost quarter rarely or never worked with library materials.

26. Ninety-five percent or more of all students felt that independent study is worthwhile.

TABLE 26

RESPONSES OF STUDENTS ABOUT THE TOTAL SCHOOL PROGRAM WITH RESPECT TO MODULAR SCHEDULING, EXPRESSED IN PERCENTAGES

(IV - 4th quarter; III - 3rd quarter; II - 2nd quarter; I - 1st quarter)

	More Became More Favorable Improved Most Better				About The Same Stayed The Same Stayed The Same About Half About The Same				Less Became Less Favorable Became Worse Very Few Not As Well			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
Under modular scheduling, I am learning	78	75	62	70	22	21	34	15	0	4	4	15
My attitude toward school has	74	88	66	46	26	8	26	36	0	4	8	18
This year my study habits have	52	59	49	64	26	37	34	18	22	4	17	18
Modular scheduling works well for how many students	44	45	57	41	52	55	43	59	4	0	0	0
This year I get my homework done	56	51	65	41	31	45	22	41	13	4	13	18

TABLE 27

RESPONSES OF STUDENTS ABOUT PROBLEMS WHICH A STUDENT MIGHT ENCOUNTER UNDER MODULAR SCHEDULING, EXPRESSED IN PERCENTAGES

(IV - 4th quarter; III - 3rd quarter; II - 2nd quarter; I - 1st quarter)

	A Definite Problem				Somewhat Of A Problem				NO Problem			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
School program is confusing	0	0	0	9	8	8	13	23	92	92	87	68
Daily change in schedule prevents regular study habits	0	0	0	5	13	0	13	38	87	100	87	57
Too many distractions	4	0	13	14	44	25	31	48	52	75	56	38
Too many temptations to do other things than study	8	12	13	29	48	44	53	52	44	44	34	19
Not able to get work organized	4	0	4	24	13	44	31	33	83	56	65	43

TABLE 28

RESPONSES OF STUDENTS TO THE PHRASE "BECAUSE OF MODULAR SCHEDULING", EXPRESSED IN PERCENTAGES

(IV - 4th quarter; III - 3rd quarter; II - 2nd quarter; I - 1st quarter)

	Yes				Doubtful				No			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
Have gotten to know my teachers better	74	63	61	62	22	29	26	24	4	8	13	14
Teachers give me more individual help	74	74	57	62	22	13	26	29	4	13	17	9
Have developed more responsibility for my education	96	96	83	72	0	0	17	14	4	4	0	14
Have learned to direct my own study efforts better	88	83	60	77	8	13	40	14	4	4	0	9
Have learned to work with other students better	88	67	74	77	8	29	26	9	4	4	0	14
Have been motivated to study in greater depth	60	63	48	43	40	25	26	38	0	12	26	19
Learned to use resources other than textbooks	92	83	83	52	8	13	17	29	0	4	0	19

TABLE 28--Continued

RESPONSES OF STUDENTS TO THE PHRASE "BECAUSE OF MODULAR SCHEDULING", EXPRESSED IN PERCENTAGES

(IV - 4th quarter; III - 3rd quarter; II - 2nd quarter; I - 1st quarter)

	Yes				Doubtful				No			
	IV	III	II	I	IV	III	II	I	IV	III	II	I
Learned to think more critically	92	71	70	81	8	21	22	14	0	8	8	5
Have had an opportunity to be more creative	74	67	70	58	26	25	22	33	0	8	8	9
Have consulted school staff members other than teachers	57	50	52	38	26	25	26	29	17	25	22	33
Been able to take more subjects	65	75	70	57	22	17	26	24	13	8	4	19

SUMMARY OF STUDENT RESPONSES ABOUT THE TOTAL SCHOOL PROGRAM WITH RESPECT TO MODULAR SCHEDULING

1. Fifteen percent of the students in the lowermost quarter felt that they were learning less under modular scheduling while nearly one-hundred percent of the students in the other three quarters felt that they were learning the same or more.

2. Eighty-two percent or more of the students indicated that their attitude toward school had remained the same or improved, with the great majority indicating improvement in attitude.

3. One-half or more of the students felt that their study habits had improved, while more students in the uppermost and lowermost quarters felt their study habits had become worse than those students in the second and third quarters.

4. About 50 percent of the students felt that modular scheduling works well with most students and about 50 percent felt that it works well with one-half of the students.

5. The great majority of the students felt that they get their homework done about the same or better, with the second and third quarters indicating the more positive responses to this question.

6. The vast majority of students felt that the school program was not confusing, with the least favorable response to this question coming from the lowermost quarter.

7. The vast majority of students felt that they could develop regular study habits with the least favorable response to this question coming from the lowermost quarter.

8. Distractions are a definite problem for only a few students in the two lower quarters. Distractions are no problem at all for three-fourths of the students in the third quarter. It was no problem to somewhat of a problem for students in the uppermost quarter.

9. Eighty-one percent of the students in the lowermost quarter, 66 percent in the second quarter, 56 percent in the third quarter, and 56 percent in the uppermost quarter indicated that the temptations to do things other than study were somewhat of a problem to a definite problem.

10. Eighty-three percent of the students in the uppermost quarter had no problem getting their work organized while nearly 60 percent of the students in the lowermost quarter saw this a problem of some degree.

11. Sixty-one percent or more of the students in each quarter indicated that they have gotten to know their teachers better. The students in the two lower quarters indicated the least favorable response to this question.

12. Three-fourths of the students in the upper two quarters felt that teachers give them more individual help while only 60 percent felt this way in the lower two quarters.

13. Ninety-six percent of the students in the upper

two quarters felt that they had developed more responsibility for their education. Seventy-two percent of the students in the lowermost quarter, and 83 percent of the students in the second quarter felt this way. Fourteen percent of the students in the lowermost quarter felt that they had developed no more responsibility for their education.

14. Sixty percent or more of the students up to 88 percent had learned to direct their own study efforts better.

15. Students in the uppermost quarter led the way with 88 percent in learning to work with other students better. Fourteen percent of the students in the uppermost quarter felt that they definitely have not learned to work with other students better.

16. About one-half or more of the students felt that they had been motivated to study in greater depth with 26 percent in the second quarter and 19 percent in the lowermost quarter feeling that they had definitely not been motivated in this direction.

17. The vast majority of the students in the upper three quarters felt that they had learned to use resources other than textbooks. Only about one-half of the students in the uppermost quarter felt this way.

18. The vast majority of all students felt that they had learned to think more critically.

19. Fifty-eight to seventy-four percent of the students in each quarter felt that they had an opportunity to be more creative.

20. One-half or more of the students in the upper three quarters had consulted school staff members other than teachers. One-third of the students in the lowermost quarter had not consulted staff members other than teachers.

21. Three-fourths of the students in the second and third quarters felt that they had been able to take more subjects. The majority of the students in the uppermost and lowermost quarters felt this way.

SUMMARY OF STUDENT RESPONSES TO THE MULTIPLE CHOICE AND THE OPEN-ENDED QUESTIONS

The following data is given in outline form as the number of students responding in the indicated manner. The manner of response was not recorded if the total number was less than two. The Roman Numerals indicate the corresponding quarters. (See pages 11 and 12).

1. Practices and problems of large group.
   a. Large group lacks variation and is boring.
      (1) IV - 1; III - 3; II - 4; I - 2.
   b. Poor teacher preparation and distractions.
      (1) IV - 0; III - 1; II - 1; I - 4.

2. Advantages of large group meetings.
   a. Materials can be given in the same way to a large number of students.
      (1) IV - 7; III - 5; II - 3; I - 3.
   b. More outside speakers can be used.
      (1) IV - 2; III - 0; II - 1; I - 1.
   c. Material is covered more thoroughly without interruption.
      (1) IV - 6; III - 5; II - 4; I - 7.
   d. More variation in the school week.
      (1) IV - 1; III - 2; II - 1: I - 0.
   e. More films and special demonstrations.
      (1) IV - 2; III - 1; II - 0; I - 1.
   f. Learning to pay attention in preparation for college classes.
      (1) IV - 2; III - 0; II - 1; I - 2.
   g. There are none.
      (1) IV - 1; III - 8; II - 5; I - 11.

3. Weaknesses or problems in large group.
   a. Dull because of no variation or lack of teacher preparation.
      (1) IV - 8; III - 6; II - 8; I - 7.
   b. There are many distractions and students do not pay attention.
      (1) IV - 2; III - 4; II - 3; I - 5.
   c. Teacher lectures too much.
      (1) IV - 3; III - 1; II - 1; I - 2.
   d. Teachers ramble and do not make their point.
      (1) IV - 2; III - 1; II - 1; I - 1.
   e. Groups are too large and instruction is impersonal.
      (1) IV - 0; III - 2; II - 2; I - 2.

f. There are none.
(1) IV - 3; III - 6; II - 3; I - 5.

4. Advantages of small group.
a. Students can get individual attention.
(1) IV - 6; III - 5; II - 3; I - 2.
b. In-depth discussion and sharing of ideas.
(1) IV - 8; III - 5; II - 5; I - 7.
c. Learn more and encouraged to greater in-depth study.
(1) IV - 2; III - 4; II - 4: I - 4.
d. Get to know teachers and other students better.
(1) IV - 4; III - 5; II - 1; I - 3.
e. There are none.
(1) IV - 1; III - 4; II - 5; I - 1.

5. Weaknesses or problems of small group.
a. Too few students participate or a few dominate.
(1) IV - 10; III - 8; II - 7; I - 3.
b. Pointless discussion - boredom.
(1) IV - 4; III - 6; II - 4; I - 3.
c. Time periods not long enough.
(1) IV - 2; III - 2; II - 1; I - 1.

6. Advantages of independent study time.
a. An opportunity to get homework done in school.
(1) IV - 6; III - 9; II - 3; I - 4.
b. More opportunity to get individual help from teachers.
(1) IV - 3; III - 0; II - 1; I - 0.
c. An opportunity for the student to study where, when, and how he wishes.
(1) IV - 4; III - 4; II - 6; I - 2.
d. An opportunity to study and research personal interests and activities.
(1) IV - 3; III - 6; II - 4; I - 2.
e. Develop responsibility with freedom.
(1) IV - 3; III - 3; II - 2; I - 1.
f. There are none.
(1) IV - 0; III - 1; II - 3; I - 3.

7. Weaknesses or problems with independent study.
a. No quiet places in school to study.
(1) IV - 6; III - 2; II - 3; I - 0.
b. Students goof around too much.
(1) IV - 7; III - 4; II - 5; I - 5.
c. No place to study.
(1) IV - 2; III - 3; II - 0; I - 0.
d. Too many free periods at once.
(1) IV - 1; III - 3; II - 1; I - 1.
e. Inconsistent and unfair supervision.
(1) IV - 1; III - 0; II - 1; I - 1.

f. There are none.
(1) IV - 4; III - 9; II - 7; I - 6.

8. The biggest advantage of modular scheduling.
a. Helps develop more student responsibility.
(1) IV - 8; III - 7; II - 6; I - 3.
b. More independent study time.
(1) IV - 2; III - 5; II - 4; I - 3.
c. More variety and a greater number of courses available.
(1) IV - 5; III - 4; II - 2; I - 2.
d. Students learn more.
(1) IV - 0; III - 2; II - 1; I - 0.
e. There are none.
(1) IV - 1; III - 3; II - 3; I - 6.

9. Other comments on modular scheduling.
a. Open campus for seniors.
(1) IV - 2; III - 0; II - 0; I - 1.
b. Modular scheduling is not for those who will not be responsible.
(1) IV - 3; III - 1; II - 2; I - 0.
c. Modular scheduling is great.
(1) IV - 4; III - 5; II - 1; I - 0.
d. Modular scheduling is bad.
(1) IV - 0; III - 1; II - 1; I - 2.

10. Average number of hours per week spent studying outside of class.
a. None.
(1) IV - 0; III - 1; II - 1; I - 0.
b. One to four.
(1) IV - 2; III - 7; II - 6; I - 7.
c. Five to ten.
(1) IV - 8; III - 6; II - 7; I - 12.
d. Eleven to twenty.
(1) IV - 10; III - 7; II - 3; I - 0.
e. More than twenty.
(1) IV - 2; III - 3; II - 5; I - 2.

11. The extent to which teachers are available and willing to give outside help.
a. Seldom or never.
(1) IV - 0; III - 0; II - 2; I - 1.
b. Occasionally.
(1) IV - 5; III - 8; II - 9; I - 10.
c. Usually when needed.
(1) IV - 18; III - 16; II - 11; I - 10.

12. Standards (expectations) set by teachers.
    a. Much too difficult.
        (1) IV - 0; III - 1; II - 2; I - 0.
    b. Somewhat difficult.
        (1) IV - 6; III - 10; II - 10; I - 6.
    c. About right.
        (1) IV - 14; III - 12; II - 6; I - 14.
    d. Somewhat easy.
        (1) IV - 3; III - 2; II - 0: I - 1.
    e. Much too easy.
        (1) IV - 0; III - 0; II - 1; I - 0.

13. Describes student feelings about going to school each day.
    a. Always look forward to it with enthusiasm.
        (1) IV - 1; III - 1; II - 0; I - 3.
    b. Usually look forward to it with enthusiasm.
        (1) IV - 12; III - 7; II - 4; I - 4.
    c. Frequently am indifferent about it.
        (1) IV - 7; III - 12; II - 7; I - 8.
    d. Very often dread the prospect of school.
        (1) IV - 1; III - 4; II - 4; I - 5.
    e. Always dislike having to go to school.
        (1) IV - 2; III - 1; II - 4; I - 1.

14. The aspects of school life which seem most valuable.
    a. Influence of good teachers.
        (1) IV - 4; III - 4; II - 6; I - 8.
    b. Participation in activities.
        (1) IV - 5; III - 5; II - 4; I - 3.
    c. Benefit from subjects taken.
        (1) IV - 12; III - 11; II - 8; I - 9.

15. The extent to which students are given freedom and unscheduled time in which they are able to decide from a variety of learning activities.
    a. There is too much freedom and laxity.
        (1) IV - 1; III - 2; II - 1; I - 6.
    b. About the right amount is provided.
        (1) IV - 17; III - 15; II - 14; I - 8.
    c. There is little freedom - much regimentation.
        (1) IV - 6; III - 7; II - 6; I - 6.

16. What students think about unscheduled time.
    a. I like being unscheduled so that I can do what I wish.
        (1) IV - 21; III - 24; II - 21; I - 6.
    b. I would prefer to be scheduled.
        (1) IV - 1; III - 0; II - 0; I - 6.
    c. I do not like unscheduled time.
        (1) IV - 0; III - 0; II - 0; I - 3.

17. Chief motivation for study.
    a. Primarily for the grade.
        (1) IV - 1; III - 5; II - 6; I - 2.
    b. For grade - 75 percent; learning 25 percent.
        (1) IV - 5; III - 5; II - 5; I - 3.
    c. For grade - 50 percent; learning 50 percent.
        (1) IV - 9; III - 8; II - 5; I - 9.
    d. For grade - 25 percent; learning 75 percent.
        (1) IV - 6; III - 3; II - 0; I - 2.
    e. Primarily for learning.
        (1) IV - 2; III - 3; II - 4; I - 5.

18. How much of your unscheduled time is being used wisely?
    a. Very little.
        (1) IV - 0; III - 0; II - 5; I - 4.
    b. Some.
        (1) IV - 6; III - 7; II - 3; I - 8.
    c. Most.
        (1) IV - 14; III - 12; II - 10; I - 8.
    d. All.
        (1) IV - 3; III - 2; II - 1; I - 0.

19. Where are you most likely to spend your unscheduled time? (given in order of student-indicated first, second, and third choices).
    a. IV - Library, quiet rooms/resource centers, laboratories.
    b. III - Library, quiet rooms/ resource centers, laboratories.
    c. II - Library, quiet rooms/resource centers, laboratories.
    d. I - Library, quiet rooms/resource centers, cafeteria study hall.

CHAPTER IV

SUMMARY AND CONCLUSIONS

GENERAL SUMMARY OF THE STUDY

The purpose of this study was to assess the extent to which some of the objectives of modular scheduling have been achieved for the class of 1970 at Westside High School. These objectives are set forth in Chapter I of this report. The information used to make this assessment was gathered by administering the Sequential Tests of Educational Progress to a randomly selected representative sample of the class of 1970. Further information gathered from a student questionnaire relative to the practices, problems, and attitudes pertinent to large group, small group, independent study, and modular scheduling was also utilized in making this assessment.

The results of the achievement testing and the responses to the questionnaire were tabulated by quarter. (See Page 12). Therefore, the writer is able to assess the relative merits of modular scheduling for each quarter of the class of 1970.

The results of the S.T.E.P. in science, mathematics, social studies, and reading were analyzed and tabulated for the five percent and one percent levels of significant growth. The t-analysis was used as the statistical technique to compare the mean scores of any two samples. The research design and procedures for collection and treatment of data are detailed

in Chapter II. The summary of the testing results is found on pages 30 and 31 of Chapter III. This summary generally shows some growth for the class of 1970 at Westside High School, Omaha, Nebraska, under modular scheduling, though not necessarily significant in the upper three quarters. Growth was not always evident for students in the lowermost quarter.

The second phase of this study consisted of administering a questionnaire to the students in the same sample. Student responses to the questions were identified by quarter only. Tabulation of these responses are found in Tables 17 through 29 of Chapter III. A detailed summary follows each group of tables in that chapter.

The remainder of this chapter will be devoted to summary and recommendations pertaining to large group sessions, small group sessions, independent study, and modular scheduling. The report is concluded with recommendations for further study and research.

LARGE GROUP SESSIONS: SUMMARY AND CONCLUSIONS

Summary:

1. The large group sessions were used primarily for presentation of material by lecture.

2. Students in the lowermost quarter felt that distractions and the temptation to do things other than listen were a problem of considerable magnitude. Students from the other three quarters felt that this was a problem, but one of less magnitude.

3. A great majority of students felt that large group is worthwhile to some degree.

4. Most students, except for those in the lowermost quarter, felt that they learned as well in large group sessions as they did in the traditional classroom.

Conclusions:

1. Large group instruction at Westside High School is fulfilling the objective of providing a means by which teacher utilization is more effective.

2. Teachers should use more variation in their large group presentations to make it more interesting and hold student attention for a longer period of time.

3. Outside resource persons should be brought into large group sessions more often.

4. Large group sessions should be designed so as to be a greater motivational factor in encouraging students to do further study on a topic.

5. Teachers should make a greater effort in eliminating distractions by other students.

6. Whenever possible, low-ability students should not be included in large group sessions.

SMALL GROUP SECTIONS: SUMMARY AND CONCLUSIONS

Summary:

1. Small group instruction seems to be the most successful phase of modular scheduling for all students.

2. Small group instruction was used often for discussion. However, it was evident that teachers also lectured often.

3. Student-dominated discussion was more of a problem than teacher-dominated discussion.

4. Small group sections are long enough and provide few distractions.

5. Students in the lowermost quarter contributed less often to the topic under discussion than did those students in the uppermost quarter.

6. Students generally felt that they learned more in small group than they did in a traditional classroom.

Conclusions:

1. The small group is helping to fulfill the objective of providing a more personalized and individualized learning experience for students.

2. Teachers should be encouraged to use small group sections less often for lecture.

3. Teachers need to become more knowledgeable of group dynamics. They need to know how to keep a group from being dominated by a few students and provide for a broader level of participation from all members of the group.

4. The small group should become the focal point for motivating students to do greater in-depth study of topics during independent study time.

INDEPENDENT STUDY: SUMMARY AND CONCLUSIONS

Summary:

1. Independent study time was used primarily for doing homework and consultation with teachers.

2. Students rarely consulted staff members other than teachers during independent study time.

3. Students liked independent study time.

4. Students wasted much of their independent study times, especially those students in the lowermost quarter.

5. Students felt that they often did not have a good place to study. They indicated that they could not find a quiet area to study.

6. Distractions caused by other students were a problem of some degree for students in the uppermost and lowermost quarters.

7. Students had problems getting their work organized, especially those in the lowermost quarter.

8. Students in the lowermost quarter felt that their attitude toward study had stayed the same or become worse.

Conclusions:

1. Independent study at Westside High School has provided more individual instruction for many students.

2. Teachers need to develop a more consistent and workable philosophy toward independent study. The essence of this philosophy needs to be conveyed to the students through a more comprehensive and continuous orientation program.

3. More quiet study areas need to be provided for students.

4. More study areas with a greater variety of materials and media should be provided for students.

5. The low-ability and poorly motivated student should have more of his time scheduled.

6. There are many encouraging aspects of independent study time, including the development of greater individual self-direction and self-responsibility. However, the full potential of independent study is far from being realized at Westside High School.

7. An independent study committee composed of administrators, teachers, and students from each quarter should be formed to study the problem and make recommendations for facilities, activities, and materials that will provide more meaningful learning experiences for all students. Therefore, a fuller realization of the potential for independent study can be brought about.

THE TOTAL SCHOOL PROGRAM: SUMMARY AND CONCLUSIONS

Summary:

1. Students have generally accepted the concept of modular scheduling. This is due in part to their enjoyment of the freedom allowed, but also because they have a feeling that they are learning more. Students from the second and third quarters did more recreational reading.

2. Students liked the idea of being able to take more courses and yet get their work done in school.

3. A majority of students indicated that they have gotten to know their teachers better.

4. Most students felt that they were getting more individual attention.

5. Students generally felt that they were becoming more responsible.

6. Less than one-half of the students were being motivated to greater in-depth study.

7. The majority of students felt that they had the opportunity to think more critically and to be more creative.

8. Most students in the upper three quarters felt that they had learned to use resources other than textbooks.

9. A great number of students were indifferent toward, or often dreaded, going to school each day.

10. The majority of students felt that teacher expectation was about right.

11. More students in the lowermost quarter felt that the influence of good teachers was more valuable than did students in the other three quarters.

12. More students in the lowermost quarter felt that there was too much freedom and laxity than did the students from the other three quarters.

13. More students in the lowermost quarters would rather be scheduled than students in the other three quarters.

14. The chief motivation for study was split between grade and learning.

15. Students generally wasted much of their unscheduled time.

16. Teachers were generally available for outside help.

17. There were great differences among students in the amount of time spent studying outside of class.

18. Tests indicated that academic improvement has occurred. However, the degree of improvement was much greater for students in the upper three quarters.

Conclusions:

1. Modular scheduling at Westside High School is providing more individual instruction for many students.

2. Modular scheduling has provided a means by which teacher time and talents can be utilized more effectively.

3. Many students have developed greater self-responsibility.

4. Modular scheduling as utilized by Westside High School has not significantly improved the study habits or attitudes of students from the lowermost quarter.

5. Academic achievement has been as good under modular scheduling as it was under traditional scheduling, except possibly for low-ability or poorly motivated students.

6. Students from the second and third quarters are generally more happy with various aspects of modular scheduling than were students from the uppermost and lowermost quarters.

7. Special programs should be created for low achievers. This is of utmost importance and should be of first priority.

8. There is danger of students from the uppermost quarter overloading themselves. Conversely, there is the tendency for students from the lowermost quarter to have an underload. Students from both of these quarters should have their schedules carefully scrutinized by their counselors.

9. An overall plan and philosophy for independent study should be developed and all students should be involved in a comprehensive and continuous orientation program for the purpose of motivating students to a fuller utilization of their independent study time.

10. There needs to be more interaction between departments pertinent to the total school program.

11. Modular scheduling as practiced by Westside High School is generally less effective for students from the lowermost quarter. However, these students generally indicated that they would respond in a positive manner to an effective program for them. They know that they need more guidance and assistance and look to the school for the provision of such a program.

12. Modular scheduling creates many new problems. These problems may even be more numerous and of a greater magnitude for students from the lowermost quarter. In order for modular scheduling to be effective for all students, inservice programs for teachers and orientation for students must be meaningful and continuous.

RECOMMENDATIONS FOR FURTHER STUDY

As a result of this study the writer makes the following recommendations for further investigation:

1. A comprehensive follow-up study of graduates of the class of 1970 to determine the long-range effect of modular scheduling upon these students relative to their attitudes and academic achievement.

2. A continuous evaluation of established patterns of academic growth should be continued.

3. Pilot program or on-the-job action programs should be developed and implemented for low achievers. These programs should provide more personalized instruction for these students. The programs should also provide each student with an identity and a feeling of worth and dignity. Furthermore, academic materials should be provided which have a high level of interest for these students.

4. Continuous evaluation and research of independent study time is essential. This is of utmost importance, as this seems to be the biggest problem area in modular scheduling. A total program effective for all students can not come about without more positive attitudes toward independent study.

APPENDIX

STUDENT QUESTIONNAIRE - MODULAR SCHEDULING

The following questionnaire will be used as part of Westside's evaluation of our modular schedule. It will help us in deciding the strengths and weaknesses of our program and also be valuable in determining what changes might be made to this year's program. A large part of the questionnaire was prepared by Dr. Gerald Speckhard of Valparaiso University. The questionnaire will be machine scored.

You need not put your name on the IBM sheet.

There are a number of open-ended questions. An attached sheet with corresponding questions numbered has been provided for these answers. Please place the same identification number on this sheet as on the IBM sheet.

Note that the numbers run horizontally across the answer sheet.

1. Indicate your age

   (1) 15 (2) 16 (3) 17 (4) 18 (5) 19

2. Indicate your sex

   (1) male (2) female

This section is on <u>LARGE GROUP SESSIONS</u>

Listed below are some of the things the teacher might do in a large group presentation. By each item write the letter that best says how often the practice is carried on in <u>your</u> large group sessions.

(1) almost always or very often (2) often or sometimes
(3) rarely or never

_____3. teacher lectures

_____4. outside speakers are brought in

_____5. teacher gives demonstration

_____6. class takes a test

_____7. teacher lets class study

_____8. teacher uses film or filmstrip

_____9. teacher uses overhead projector

_____10. teacher uses TV, radio, or phonograph

_____11. teacher uses demonstration charts or graphs

_____12. teacher carries on general discussion

_____13. teacher allows students to ask questions during the presentation

_____14. student makes a presentation

_____15. other (please specify)_____

Listed below are some of the problems students might encounter more in large group sessions than in normal classroom situations. Next to each one write the letter that best says the extent that it is a problem <u>for you</u>.

(1) it is a <u>definite</u> problem for me (2) it is <u>somewhat</u> of a problem for me (3) it is <u>no</u> problem for me

_____16. the large number of students makes the instruction less personal

_____17. not being able to hear as well

_____18. not being able to see as well

_____19. distractions caused by other students because of the size of the group

_____20. not being able to ask questions

_____21. lack of variations during the sessions

_____22. not being able to have discussion

_____23. teacher goes too fast

_____24. other (please specify)_____

Multiple Choice: Select the answer that best illustrates your feeling

_____25. The large group presentation makes me want to do further study in the topic under consideration: (1) almost always or very often (2) sometimes or occasionally (3) rarely or never

_____26. Compared to a normal classroom situation, I think that in the large group sessions I learn: (1) better (2) about the same (3) not as well

_____27. During the large group sessions, how many students regularly pay attention to the presentation? (1) almost all or most (2) about half (3) few or none

_____28. The teacher changes the type of presentation from one large group session to the next large group session I have with him: (1) often (2) some (3) very little

_____29. The teacher will vary his presentation during the large group session: (1) often (2) some (3) very little

_____30. I think that the large group sessions are: (1) very worthwhile (2) somewhat worthwhile (3) rarely worthwhile

_____31. Compared to a normal classroom situation, I find that the temptation to daydream, talk, or read during the large group presentation is: (1) greater (2) about the same (3) less

What is the biggest advantage to you in having large group sessions? If you cannot think of any, write "none".

31a. _____

What is the biggest weakness or problem found in large group sessions? If you cannot think of any, write "none".

31b. _____

This section is on SMALL GROUP SECTIONS or SEMINARS

Listed below are some of the practices that might take place in small group sections. Next to each practice write the letter of the item that best says how often the practice is carried on in your small group section.

(1) almost always or very often (2) often or sometimes (3) rarely or never

_____32. the teacher lectures

_____33. the students lead the class in discussion

_____34. the teacher leads in class discussion

_____35. the class studies or does homework

_____36. students give reports

_____37. students perform experiments

_____38. teacher goes over homework with class

_____39. teacher gives help to the individual students

_____40. teacher allows students to do as they please

_____41. the activities center around the topic presented in large group discussion

_____42. teacher allows students to work elsewhere

_____43. other (please specify) _____

Listed below are some problems that students might encounter in small group sections. Next to each one write the letter of the item that best says to what extent it is a problem <u>for you</u>.

(1) it is a <u>definite</u> problem for me (2) it is <u>somewhat</u> of a problem for me (3) it is <u>no</u> problem for me

_____44. a few students monopolize the discussion

_____45. the teacher dominates the discussion

_____46. other students cause distractions

_____47. the time is too short to get much accomplished

_____48. the discussion strays from the topic under consideration

_____49. I am not able to meet with my section the full time each time it meets

_____50. afraid to contribute because of the teacher's reaction

_____51. afraid to contribute because of other students' reaction

_____52. we often do not discuss the topic presented in the large group session

_____53. other (please specify) _____

Multiple Choice: Select the answer that best describes your feelings

_____54. In small group sessions, I contribute to the topic under discussion: (1) always or very often (2) sometimes or occasionally (3) rarely or never

_____55. In observing other students in small group sections, it seems to me that the discussions carried on involve: (1) most of the students (2) about half of the students (3) just a few of the students

_____56. How many of the students have an opportunity to lead the discussion once in a while? (1) all or almost all (2) about half (3) few or none

_____57. Small group sections make me want to do further study in the topic under consideration: (1) always or very often (2) sometimes (3) rarely or never

_____58. Compared to a normal classroom situation, I think that in small group sections I learn: (1) better (2) about the same (3) not as well

_____59. Compared to a normal classroom situation, I think that in small group sections I have learned to know and work with other students: (1) more (2) about the same (3) less

_____60. Compared to a normal classroom situation, I think that small group sessions are: (1) more worthwhile (2) about the same (3) less worthwhile

_____61. In class discussion, how often do you direct your comments or questions to another student rather than the teacher? (1) often (2) sometimes (3) rarely or never

What is the biggest advantage to you in having small group sections? If you cannot think of any, write "none".

61a. _____

What is the biggest weakness or problem found in small group sections? If you cannot think of any, write "none".

61b. _____

This section is on UNSCHEDULED TIME or INDEPENDENT STUDY

Below are listed some of the things that students might do during independent study time. By each practice write the letter of the item that best says your usual practice.

(1) almost always or very often (2) often or sometimes (3) rarely or never

_____62. study by myself

_____63. consult a teacher for help

_____64. talk to a counselor

_____65. work in a science laboratory, language laboratory, home economics room, typing room, shops, music rooms, gymnasium or pool.

_____66. work in the library using library materials (not just your own text)

_____67. study topics other than homework

_____68. talk with other students about homework

_____69. study some course topic in more depth than the teacher requires

_____70. do recreational reading

_____71. "shoot the breeze" with friends

_____72. waste time (sleep, daydream, cut-up, etc.)

_____73. work on activities (yearbook, student council, etc.)

_____74. other (please specify) _____

Listed below are some problems that students might have in using their unscheduled time well. Next to each one write the letter of the item that best says the extent that it is a problem for you.

(1) it is a definite problem for me (2) it is somewhat of a problem for me (3) it is no problem for me

_____75. the length of the different time periods for independent study are often too short

_____76. the length of the different time periods for independent study are often too long

_____77. I have no good place to study

_____78. temptations to do things other than study

_____79. distractions caused by other students

_____80. laboratories, shops, typing room, and other such rooms are not available when it would help me to work there

_____81. not getting my work organized

_____82. teachers are not available to give me help

_____83. not knowing what or where materials are available for me to use in my study

_____84. counselors are not available for consultation

_____85. teachers do not encourage my seeking their help

_____86. counselors do not encourage my seeking their help

_____87. librarian is not available or does not encourage my seeking help

_____88. principal or assistant principal do not encourage my seeking their help

Multiple Choice: Select the answer that best describes your feelings.

_____89. Under independent study my attitude toward studying in general has: (1) improved (2) stayed about the same (3) become worse

_____90. Compared to studying in a study hall, a classroom, or at home, I think that in independent study I learn: (1) better (2) about the same (3) not as well

_____91. I think that independent study time is: (1) generally worthwhile (2) somewhat worthwhile (3) rarely or never worthwhile

What is the biggest advantage to you in having independent study time? If you cannot think of any, write "none".

91a. _____

What is the biggest weakness or problem found in independent study time for you? If you cannot think of any, write "none".

91b. _____

This section is on your total school program with respect to modular scheduling.

Multiple Choice: Select the answer that best describes your feelings.

_____92. I think that under modular scheduling I am learning: (1) more (2) about the same (3) less

_____93. Under modular scheduling, my attitude toward school in general has: (1) become more favorable (2) stayed about the same (3) become less favorable

_____94. I think that this year my study habits have: (1) improved (2) stayed about the same (3) become worse

_____95. Modular scheduling seems to work well for how many students? (1) almost all or most (2) about half (3) less than half or only a few

_____96. Modular scheduling works well in how many of your classes? (1) most or all (2) one or two (3) none

_____97. I find that this year I get my homework done: (1) better (2) about the same (3) not as well

Listed below are some problems that students might have in attending a school which uses a modular schedule. Next to each write the letter of the item that says best to what extent it is a problem for you.

(1) it is a definite problem (2) it is somewhat of a problem (3) it is no problem

_____98. the school program is confusing

_____99. the daily change in schedule prevents the development of regular study habits

____100. there are too many distractions

____101. there are too many temptations to do things other than study

____102. not being able to get my work organized

____103. other (please specify) _____

What do you think is the biggest advantage that modular scheduling offers you in your education? If you cannot think of any, write "none".

103a. _____

Because of modular scheduling:

____104. I have gotten to know my teachers better
(1) yes (2) doubtful (3) no

____105. The teachers have given me more individual help
(1) yes (2) doubtful (3) no

____106. I have developed more responsibility for my own education
(1) yes (2) doubtful (3) no

____107. I have learned to direct my own study efforts better
(1) yes (2) doubtful (3) no

____108. I have learned to work with other students better
(1) yes (2) doubtful (3) no

____109. I have been motivated to study my subjects in greater depth
(1) yes (2) doubtful (3) no

____110. I have learned to study using other resources besides my textbooks
(1) yes (2) doubtful (3) no

____111. I have learned to think more critically about problems and topics in the courses I take
(1) yes (2) doubtful (3) no

____112. I have had a chance to be more creative
(1) yes (2) doubtful (3) no

____113. I have consulted school staff members other than teachers (principal, counselors, librarian) more than previous years
(1) yes (2) doubtful (3) no

____114. I have been able to take more subjects
(1) yes (2) doubtful (3) no

Give any other comments here that you have on modular scheduling which you feel are not fully covered elsewhere in this questionnaire.

114a. _____

You are asked to furnish information about your experiences in and reactions to this school.

____115. What is the average number of hours per week you spend out of class study? (Include time in both school and home). (1) none (2) 1 to 4 (3) 5 to 10 (4) 11 to 20 (5) more than 20.

Comments: _____

____116. To what extent are teachers available and willing to give you outside help on your studies? (1) seldom or never (2) occasionally (3) usually when needed

Comments: _____

____117. How would you describe the standards (expectations) set by your teachers? (1) much too difficult (2) somewhat difficult (3) about right (4) somewhat easy (5) much too easy

Comments: _____

____118. Which of these statements best describes your feeling about going to school each day? (1) always look forward to it with enthusiasm (3) frequently am indifferent about it (4) very often dread the prospect of school (5) always dislike having to go to school

Comments: _____

____119. Which of the following aspects of school life seem most valuable as far as you are concerned? (1) influence of good teachers (2) participation in activities (3) benefit from subjects taken (4) other (specify below)

Comments: _____

____120. To what extent are students given freedom and unscheduled time in which they are able to decide from a variety of learning opportunities (using the library, labs, seeing teachers, etc.)? (1) there is too much freedom and laxity (2) about right amount is provided (3) there is little freedom, much regimentation.

Comments: _____

____121. What do you think about unscheduled time? (1) I like being unscheduled so that I can do what I want (2) I would prefer to be scheduled and then the teacher would give me time to work on my studies (3) I don't like unscheduled time.

Comments: _____

____122. What is your chief motivation for study? (1) primarily for the grade (2) for grade -- 75%; learning 25% (3) for grade -- 50%; learning 50% (4) for grade -- 25%; learning 75% (5) primarily for learning.

Comments: _____

____123. How does this compare with your attitude a year ago? (1) same (2) more for learning (3) more for grades.

Comments: _____

____124. How much of your unscheduled time is being used wisely? (1) very little (2) some (3) most (4) all

Comments: _____

Where are you most likely to spend your unscheduled time? Rank the top three in order of time spent. Mark column (1) for first choice column (2) for second choice, column (3) for third choice

125. _____ library

126. _____ cafeteria

127. _____ art room

128. _____ shop

129. _____ laboratories

130. _____ classrooms

131. _____ quiet room/resource centers

132. _____ open recreation

133. _____ girls gym

134. _____ other (specify on comment sheet)

COMMENT SHEET -- IDENTIFICATION NUMBER _____

15. _____

24. _____

31a. _____

31b. _____

43. _____

53. _____

61a. _____

61b. _____

74. _____

91a. _____

91b. _____

103a. _____

114a. _____

_____

115. _____

116. _____

117. _____

118. _____

119. _____

120. _____

121. _____

122. _____

123. _____

134. _____

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